II nd and final PRE-MEASUREMENTS

BRUHATH BANGALORE MAHANAGARA PALIKE

Name of Work: Remodeling of SWD BP 026 (BY03) from BB Nagara, Kodigehalli to H-200 primary drain near Nagashettihalli main road in ward no.08, in Yelahanka Zone

Pre-Measurements

Item No	Description	Unit	No.	L	B	D	Qty.
6	Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. B. Mechanical Means (i) Depth upto 3 m. MORTH Specification No.Section 304						
	Date of Recording :						
	side Drain below approach slab	Cum	1	7.70	1.80	(1.55+1.60)/2	21.82
	Deduct for existing drain		-1	7.70	0.80	0.80	-4.93
	Road side drain Mega arts road LHS		1	8.20	0.85	(1.20+1.25)/2	8.54
	Deduct for existing drain		-1	8.20	0.45	0.45	-1.66
	Mega arts road RHS		1	9.30	0.85	(1.20+1.25)/2	9.68
	Deduct for existing drain		-1	9.30	0.45	0.45	-1.88
	For Approach slab, ORR to Kodigehalli Main road		1	5.40	(1.40+1.60)/2	(0.45+0.40)/2	3.44
			1	5.50	(1.60+3.80)/2	(0.45+0.40)/2	6.31
			1	7.70	12.80	(0.45+0.40)/2	41.89
			1	1.90	12.40	(0.45+0.40)/2	10.01
			1	21.50	(3.00+4.50)/2	(0.45+0.40)/2	34.27
						Total Qty	127.49

AE/CWD/Y2
11/5/2015

11/05/15
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
7	Providing and Filling in foundation with granite/trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead upto 50m and lift of 1.5m complete as per specifications						
	Measurement Contd. on :						
	side drain below approach	Cum	1	7.70	1.80	(0.28+0.32)/2	4.16
						Total Qty	**4.16**

AEE/SWD/Y2
14/5/2015

14/5/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
8	Plain cement concrete M 10 with OPC cement @ 220 kgs with crushed 40m and down size graded grantie metal coarse aggregates @ 0.84 cum and fine aggregates @ 0.56 cum in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications						
	Measurement Contd. on :						
	drain below approach	Cum	1	7.70	1.80	0.10	1.38
	Mega arts road LHS		1	8.20	0.85	0.10	0.69
	Mega arts road RHS		1	9.30	0.85	0.10	0.79
						Total Qty	**2.86**

18/05/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹಬ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

18/5/2015

Item No	Description	Unit	No.	L	B	D	Qty.
9	PCC M15 Grade leveling course below approach slab complete as per drawings and technical specifications complete as per specifications. MORTH specification No.2700 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	5.40	(1.40+1.60)/2	0.15	1.22
			1	5.50	(1.60+3.80)/2	0.15	2.23
			1	7.70	12.80	0.15	14.78
			1	1.90	12.40	0.15	3.53
			1	21.50	(3.00+4.50)/2	0.15	12.09
						Total Qty	**33.85**

checked
19/6/15

AE
19/6/2015

19/06/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
13	Supplying, fitting and placing TMT bar reinforcement in sub-structure as per drawing and Technical Specifications complete as per specifications.						

Sl.No	Item/Bar nor	Dia of bar	length in mtr	spacing	no of bars	total length	wt/m	total wt in Kgs	Remarks
	Kodigehalli Main road								
	Raft width-1.80m			Wall Height-0.80m			Length-7.70 m		
		12	1.70	150 c/c	104	176.80	0.89	157.35	Top and Bottom rods for Raft 2x52
		12	1.20	150 c/c	208	249.60	0.89	222.14	For wall Both sides 4x52
		10	7.60	200 c/c	18	136.80	0.62	84.82	Distributio n rods for Raft 2x9
		10	7.60	200 c/c	16	121.60	0.62	75.39	Distributio n rods for Walls 4x4
								539.70	
	Mega Arts Road LHS								
	Raft width-0.80m			Wall Height-0.90m			Length-8.20 m		
		12	0.70	150 c/c	110	77.00	0.89	68.53	Top and Bottom rods for Raft 2x55
		12	1.20	150 c/c	220	264.00	0.89	234.96	For wall Both sides 4x55
		10	8.10	200 c/c	8	64.80	0.62	40.18	Distributio n rods for Raft 2x4
		10	8.10	200 c/c	20	162.00	0.62	100.44	Distributio n rods for Walls 4x5
								444.11	
	Mega Arts road RHS								
	Raft width-0.80m			Wall Height-0.90m			Length-9.30 m		
		12	0.70	150 c/c	124	86.80	0.89	77.25	Top and Bottom rods for Raft 2x62
		12	1.20	150 c/c	248	297.60	0.89	264.86	For wall Both sides 4x62
		10	9.20	200 c/c	8	73.60	0.62	45.63	Distributio n rods for Raft 2x4
		10	9.20	200 c/c	20	184.00	0.62	114.08	Distributio n rods for Walls 4x5
								501.83	
								1485.64	1.48 MT

Checked
Junior
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

AEE/EE/Dy2
25/5/2015

Item No	Description	Unit	No.	L	B	D	Qty.
10	Plain / Reinforced Cement concrete in open foundation with OPC cement design mix M35 @ 390 kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68 cum and fine aggregates @ 0.45 cum with superplastisiser @ 3lts confirming to IS 9103-1999 Reaffirmed-2010complete as per drawing and technical specification. Case-II : With Batching Plant, Transit Mixer and Concrete Pump						
	Measurement Contd. on :						
	Raft	Cum	1	7.70	1.80	(0.38+0.40)/2	5.40
			1	8.20	0.85	(0.23+0.25)/2	1.57
			1	9.30	0.85	(0.23+0.25)/2	1.78
						Total Qty	**8.75**

26/5/2015

26/05/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
11	Design mix M 35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45 cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) upto 5m height						
	Measurement Contd. on :						
	Walls	Cum	2	7.70	0.30	0.80	3.69
			2	8.20	0.20	0.90	2.95
			2	9.30	0.20	0.90	3.34
						Total Qty	9.98

AE/JE/WO/Y2
29/5/2015

9/05/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
14	Supplying, fitting and placing TMT bar reinforcement in super-structure complete as per drawing and technical specifications complete as per specifications.						

Sl.No	Item/Bar nor	Dia of bar	length in mtr	spacing	no of bars	total length	wt/m	total wt in Kgs	Remarks
	Drain below Approach Slab								
	Slab width-1.40m						Length-7.70 m		
		12	1.40	150 c/c	104	145.60	0.89	129.58	Top and Bottom rods for Slab 2x52
		10	7.60	200 c/c	14	106.40	0.62	65.97	Distributio n rods for Slab 2x7
	near highmast light for slab	12	1.50	150 c/c	34	51.00	0.89	45.39	Top and Bottom rods for Slab 2x17
		10	1.50	200 c/c	14	21.00	0.62	13.02	Distributio n rods for Slab 2x7
	Near Mega Arts Slab	12	0.70	150 c/c	32	22.40	0.89	19.94	Top and Bottom rods for Slab 2x16
		10	2.20	200 c/c	8	17.60	0.62	10.91	Distributio n rods for Slab 2x4
Precast Slabs	12	12	0.70	150 c/c	18	151.20	0.89	134.57	Top and Bottom rods for Slab 2x9
	12	10	1.30	200 c/c	6	93.60	0.62	58.03	Distributio n rods for Slab 2x3
							Total Qty	**477.41**	**0.47MT**

3/6/2015

03.06.15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
12	Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D.RCC/PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case-II : Using Batching plant, Transit mixer &						
	Measurement Contd. on :						
	Deck slab below approach	Cum	1	7.70	1.40	0.20	2.15
	Near High mast		1	2.60	1.60	0.10	0.41
	Near Mega Arts road Slab		1	2.30	0.80	0.20	0.36
	Pre-cast slabs		12	1.35	0.60	0.15	1.45
						TotalQty	**4.37**

04.06.15

4/6/2015

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
18	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials within a lead of 100 mtrs including cost of all labour charges complete as per specifications. MORTH / Chapter 3 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	9.00	13.00		117.00
			1	4.00	13.00		52.00
						Total Qty	169.00

AE/AW/2015
8/6/2015

C & J
Rma
03/06/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ವೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
19	Scarifying stone metal crust 50mm to 100mm thick with pick axes along with premix carpet / surface dressing and stackign of old serviceable materials within a lead of 100 metres by manual means including cost of all labour charges complete as per specifications. MORTH / Chapter 3 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	9.00	13.00		117.00
			1	4.00	13.00		52.00
						Total Qty	169.00

C & E

08/06/15

AE/EE 8/6/2015

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
20	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with 3 wheeled steel / vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening / binding materials to fill up the interstices of coarse agreegate, watering and compacting to the required density complete as per specification.A by Manual means. Type A 13.2mm for grading II. MORTH Specification No.404 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	5.40	(1.40+1.60)/2	(0.14+0.15)/2	1.17
			1	5.50	(1.60+3.80)/2	(0.15+0.14)/2	2.15
			1	7.70	12.80	(0.14+0.15)/2	14.21
			1	1.90	12.40	(0.15+0.14)/2	3.42
			1	21.50	(3.00+4.50)/2	(0.14+0.15)/2	11.68
						Total Qty	32.63

AEE/AWD1/2
10/6/2015

10/06/15
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ವೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
21	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with 3 wheeled steel / vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening / binding materials to fill up the interstices of coarse agreegate, watering and compacting to the required density complete as per specification.A by Manual means. Type B 11.2mm for grading III. MORTH Specification No.404 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	5.40	(1.40+1.60)/2	(0.09+0.10)/2	0.76
			1	5.50	(1.60+3.80)/2	(0.10+0.09)/2	1.41
			1	7.70	12.80	(0.09+0.10)/2	9.36
			1	1.90	12.40	(0.10+0.09)/2	2.23
			1	21.50	(3.00+4.50)/2	(0.09+0.10)/2	7.65
						Total Qty	**21.41**

AE/AEE/JE
15/6/2015

15/06/15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬೃಹತ್ ನೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
16	Reinforced cement concrete M30 approach slab including reinforcement and form work complete as per drawings and technical specifications complete as per specifications.MORTH specification No.1500, 1600, 1700, & 2704 with all lead and lifts as directed by the Engineer-in-charge.						
	Measurement Contd. on :						
	For Approach slab, ORR to Kodigehalli Main road		1	5.40	(1.40+1.60)/2	(0.40+0.25)/2	2.63
			1	5.50	(1.60+3.80)/2	(0.40+0.25)/2	4.83
			1	7.70	12.80	(0.40+0.25)/2	32.03
			1	1.90	12.40	(0.40+0.25)/2	7.66
			1	21.50	(3.00+4.50)/2	(0.40+0.25)/2	26.20
						Total Qty	**73.35**

AE & JWO/12
23/6/2015

23.06.15

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ.
ಬೃಹತ್ ವೀರುಗಾಲುವೆ ಉಪ ವಿಭಾಗ,
ಯಲಹಂಕ ವಲಯ,
ಬೃಪತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

Item No	Description	Unit	No.	L	B	D	Qty.
22	Collecting, conveying and disposal of surplus / excavated earth to designated dupmping site (15.00 kms) as directed by the Engineer in charge.						
	Measurement Contd. on :						
	Total quantity excavated (60%of I No - 6)	Cum			127.49x0.6=76.49		76.49
						Total Qty	**76.49**

For the Above work Bill has been prepared in the MB No. 759/09-10, Page No: 75875 to75883/2

10/8/2015

Assistant Engineer
SWD, Yelahanka Zone
BBMP, Bangalore

10/08/15

Asst.Executive Engineer
SWD,Yelahanka Zone,
BBMP, Bangalore